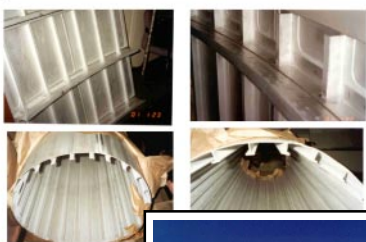




Advanced Welding and Fabrication Techniques for Al-Li Alloys

Al-Li Integrally Stiffened Panel Fabrication



- NIS weapons institutes developed new materials & processing technologies
 - Al-Li alloys have reduced density, increased stiffness
 - Advanced welding techniques allow formation of stiff, lightweight panels
- Russian, Ukrainian and U.S. partners will design, analyze, fabricate prototype aircraft & launch vehicle components
- Lightweight extruded panels can dramatically reduce cost, improve performance of aircraft & launch vehicle systems
- Shift from weapons to commercial aerospace design & manufacturing holds great economic potential for Russia and Ukraine



The Boeing Company
Huntington Beach, CA



Chelyabinsk-70 (VNIITF)
All Russian Institute for Light Alloys (VILS)
Kamensk Uralski Metallurgical Plant (KUMZ)
Mechanical Engineering Research Institute (IMASH)
Russia



E.O. Paton Electric Welding Institute
Yuzhnoye Design Bureau
Youzhmash Company
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